

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
)	
Review of the Emergency Alert System)	EB Docket No. 04-296
in Satellite Digital Audio Radio Service)	
)	

INTRODUCTION

On November 10, 2005, the *Federal Communications Commission* (“FCC”) released its *First Report and Order* (“Order”) requiring that all licensees of the Satellite Digital Audio Radio Service (“SDARS”) participate in the Emergency Alert System (“EAS”). SDARS licensees must cease normal broadcasting during emergencies and transmit national EAS messages on all channels by December 31, 2006. The Order also encouraged SDARS licensees to pursue the ability to receive alerts from state and local emergency managers and to disseminate them over local traffic and weather channels.

The FCC made this ruling pursuant to its goal of promoting the “safety of life and property through the use of wire and radio communication.”¹ National EAS obligations in SDARS are a considerable step toward the realization of this goal. However, the FCC must go one step further by *requiring* SDARS licensees to receive and disseminate state and local emergency alerts. A mandate of this type would ensure that a growing population of SDARS subscribers would receive vital state

¹ 47 U.S.C. §§ 151

and local emergency warnings. The FCC would presumably provide licensees with an EAS framework to follow. Licensees would receive these state and local warnings directly from EAS originating sources, such as the National Weather Service (“NWS”) or respective State Governors, and State Emergency Operations Centers. Once received, licensees would preempt all subscriber text boxes and announce the emergency message and a channel number which would provide more detailed information.

BACKGROUND

Under the Communications Act of 1934, the FCC must promote “safety of life and property through the use of wire and radio communication.”² Pursuant to this mandate, the FCC required a national alert and warning system be established for the American public. Since 1994, EAS has performed this function. EAS is jointly administered by the FCC, the Federal Emergency Management Agency (“FEMA”), and the NWS.³

EAS provides the President with a means to address the American public in the event of a national emergency.⁴ A Presidential message takes priority over any other message and preempts other messages in progress.⁵ To distribute these Presidential alerts, the national EAS uses a hierarchical structure.⁶ FEMA distributes Presidential alerts to 34 designated broadcast stations called Primary Entry Points (“PEP”). The PEPs are monitored by approximately 550 Local

² 47 U.S.C. §§ 151

³ <http://ftp.fcc.gov/cgb/consumerfacts/eas.html>

⁴ 47 C.F.R. § 11.1

⁵ 47 C.F.R. § 11.44(a)

⁶ 47 C.F.R. § 11.18

Primary One (“LP-1”) broadcast stations. The LP-1 broadcast stations are in turn monitored by other broadcast stations which transmit the alerts to viewers and listeners. State and local EAS uses a similar hierarchical structure to distribute state and local emergency alerts to the public.⁷ The State Governor and State Emergency Operations Center distribute state alerts to designated broadcast stations called State Primary Entry Points. State Relay sources relay state emergency alerts into local areas through Local Primary sources.

At present, EAS relies almost exclusively on delivery through broadcast stations and cable systems.⁸ However, due to recent growth in SDARS subscribers, the FCC recognized the importance of emergency warnings reaching this population as well. SDARS is a subscription-based radio service that provides nationwide programming.⁹ In 1997, the FCC granted SDARS licenses to Sirius Satellite Radio Inc. (“Sirius”)¹⁰ and XM Radio Inc. (“XM”)¹¹. Pursuant to these licenses, Sirius and XM are obligated to deliver national programming.¹² Content must be made available to all subscribers at all locations. For example, a warning about a flood in Seattle must be made available to a subscriber in Kansas or Florida. The FCC created this limitation to prevent direct competition between SDARS licensees and terrestrial radio broadcasters.¹³ In the view of the National Association of Broadcasters (“NAB”), an unfettered SDARS industry of superior technology would

⁷ See fn 6

⁸ NPRM, paragraph 4

⁹ Benjamin, Lichtman, and Shelanski, *Telecommunications Law and Policy, 2005 Cumulative Supplement*, page 105

¹⁰ 13 FCC Rcd 7971 (1997) (formerly, Satellite CD Radio, Inc.)

¹¹ 13 FCC Rcd 8829 (1997) (formerly, American Mobile Radio Corporation)

¹² See fn 8

¹³ See fn 8

cause free over-the-air radio to perish.¹⁴ For this reason, Sirius and XM remain a national radio service.

DISCUSSION

The FCC expressed its “immediate concern ... [in insuring that SDARS licensees] deliver some level of basic ... regional warning now, while more sophisticated alert and warning systems are being developed.¹⁵” However, merely encouraging SDARS licensees to receive and disseminate these warnings on local traffic and weather channels is not an effective warning system; EAS compliance would be more effective if required.

Once they are required to do so, a state and local EAS framework for SDARS licensees must necessarily follow. That framework would specify how SDARS licensees are to receive state and local emergency alerts and how to disseminate them to their subscribers. The framework must balance SDARS’ legal and technological limitations against the FCC requirement to provide the public with emergency information.

I. The FCC Must Require SDARS Licensees to Participate in State and Local EAS.

SDARS licensees provide specialized channels containing round-the-clock information on local and regional traffic and weather. Sirius offers Traffic and Weather channels for 20 markets and XM offers Instant Traffic and Weather

¹⁴ <http://www.fmqb.com/Article.asp?t=p&id=22817>

¹⁵ FRO & FNPR 04-296, paragraph 17

channels for 21 markets.¹⁶ These are the only channels on which emergency information is available. This framework does not ensure that all listeners would receive these warnings. Unless one happens to be listening to the specialized channels, the information cannot be heard. Many subscribers may be excluded from receiving vital information.

Moreover, the nature of SDARS demands these obligations be fulfilled more readily than in any other facet of the communications industry. In broadcast and cable, providers are required to offer local programming. Local radio broadcast stations have license obligations to provide local communities with local programming.¹⁷ Under the “must carry” rules, cable systems are required to carry the programming of local television stations.¹⁸ As a result, local communities almost always receive state and local alerts. For this reason, an FCC requirement for participation in state or local EAS would be redundant.

Unlike broadcast stations and cable systems, SDARS licensees cannot provide local programming. Sirius and XM have license obligations to deliver radio programming nationwide. Content must be made available to all subscribers at all locations. Moreover, the technology behind SDARS makes it difficult for licensees to provide programming to particular regions in the United States. Participation in state and local EAS would relieve these technological shortcomings.

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<http://www.sirius.com/servlet/ContentServer?pagename=Sirius/CachedPage&c=Page&cid=1107787276407>; <http://www.xmradio.com/programming/neighborhood.jsp?hood=traffic>

¹⁷ http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2001/nrcc0102.html; Professor Manheim’s Slides

¹⁸ Benjamin, Lichtman, and Shelanski, *Telecommunications Law and Policy*, page 455

II. SDARS Licensees Must Receive State and Local Emergency Messages From Originating EAS Sources.

While the need for SDARS participation in EAS is obvious, the FCC must design a framework that describes how licensees are to receive state and local emergency alerts. Currently, Sirius and XM individually collaborate with certain services to receive these warnings.¹⁹ However, to ensure licensees will receive all emergency warnings from every state and locality, the FCC must design an overarching framework where Sirius and XM would work together with originating EAS sources. Sirius and XM would, therefore, receive the same information from the same sources; thereby enhancing quick access, consistency, and reliability.

It is feasible for the FCC to design such a system, synonymous with the state and local EAS hierarchical structure used in broadcast and cable. Sirius and XM could be designated as State Primary Entry Points for every state; this would allow them to receive EAS alerts directly from the NWS, State Governors, and State Emergency Operations Centers. Usually in an event of a state or local emergency, originating EAS sources enter an EAS message into specialized equipment called EAS encoder-decoders (“ENDECs”).²⁰ The decoder component receives and interprets the message and the encoder component transmits relayed messages.

As designated State Primary Entry Points, Sirius and XM would receive the EAS message with their own ENDEC units at their operation centers in New York and Washington D.C., respectively. All EAS messages contain “SAME Header Code,” which provides information about who originated the alert, the nature of the

¹⁹ See XM Comments, page 4

²⁰ http://en.wikipedia.org/wiki/Emergency_Alert_System

event, the location of the emergency (up to 32 counties or states), and the valid time period of the message.²¹

III. SDARS Licensees Must Preempt All Subscriber Text Boxes and Announce the State or Local Emergency and the Channel Number Transmitting Detailed Information.

The national EAS framework already requires SDARS licensees to transmit national EAS messages on all channels. However, all channel transmission of state and local emergency messages is not necessary. Therefore, the FCC should focus on a framework which could allow local targeting while reflecting SDARS' current technological capabilities and legal limitations. Discussed below are various framework proposals which might ensure public receipt of vital state and local emergency alerts.

A. All channel transmission of state and local emergency messages.

The FCC could consider a framework which requires SDARS licensees to transmit state and local EAS messages on all channels, which is similar to the national EAS framework. Licensees would cease normal broadcasting on all channels and transmit the state or local warning. This framework is not only technologically feasible for both Sirius and XM, but it also would guarantee that every subscriber would receive the emergency alert.²²

However, this framework would cause some listeners to receive warnings not specific to their current location. Large numbers of inapplicable messages would unduly disrupt listeners and may cause these emergency messages to lose their

²¹ See fn 20

²² See XM Comments, page 10

impact. For example, a Sirius subscriber located in San Diego may be alarmed and confused about an alert on hazardous flooding in Mississippi. For this reason, all channel transmission of state and local messages would not be an effective framework.

B. Originate state and local emergency messages at terrestrial repeaters.

Another framework could require SDARS licensees to originate local and state EAS alerts at their terrestrial repeaters. Under this framework, a terrestrial repeater in San Francisco, with its own ENDEC unit, would receive a local emergency alert and transmit that alert only to subscribers within the San Franciscan area. This would eliminate the problem of subscribers being bombarded with large numbers of inapplicable warnings.

However, Sirius and XM currently have only temporary authority to use terrestrial repeaters for the sole purpose of amplifying their signal to fill gaps in satellite coverage.²³ In addition, this authority is dependent upon Sirius and XM's obligation not to originate programming at these terrestrial repeaters.²⁴

Moreover, as previously discussed, Sirius and XM must remain a national radio service pursuant to their license obligations. The FCC could propose regulatory relief, but the opposition may be too much to overcome. The NAB and other entities would adamantly oppose SDARS licensees to provide anything but nationwide programming, even if for the narrow purpose of state and local EAS

²³ FCC Order and Authorization, File No. SAT-STA-20031112-00371

²⁴ FCC Order and Authorization, File No. SAT-STA-20010712-00063

alerts. NAB could view this narrow exception as opening the door for more exceptions that would eventually allow SDARS licensees unrestricted ability to originate local programming at all terrestrial repeaters.

Assuming the FCC granted regulatory relief despite opposition, SDARS licensees are also technologically limited to originate state and local emergency warnings at their terrestrial repeaters. Sirius and XM would need to deploy additional equipment, such as ENDEC units, to their terrestrial repeaters.²⁵ In addition, because existing repeaters are meant to address coverage gaps only, the repeater network is nowhere close to covering the entire nation. Regulatory and technological limitations restrict the feasibility of requiring licensees to originate state and local emergency messages at terrestrial repeaters.

C. All channel transmission of a brief announcement of the state or local emergency and the channel number transmitting detailed information.

The FCC could also consider a framework which would require SDARS licensees to cease normal broadcasting on all channels and transmit a brief announcement of the locality and type of alert, and the channel number transmitting detailed information. This would ensure that all listeners would be notified of an emergency alert that may affect them. If it did, those listeners could tune in on the corresponding channel. Under this framework, the FCC would need to establish standards for the brief announcements. Only in this way would emergency alerts be received clearly, quickly, and consistently.

²⁵ See XM Comments, page 3

A brief announcement of an emergency is less disruptive than an entire emergency message. However, listeners may still be barraged with large amounts of announcements since “most emergencies originate at the state and local level.”²⁶ Large amounts of announcements could negatively affect an individual’s decision to subscribe to either Sirius or XM. Moreover, as previously discussed, such bombardment may cause these emergency messages to lose their impact. For this reason, all channel transmission of a brief announcement of the alert would not be effective.

D. Transmit state and local emergency messages to all receivers and then play locally-oriented material selected out of that nationally distributed content.

Another framework could require SDARS licensees to transmit emergency messages to all of their subscribers’ receivers. Embedded Global Positioning System (“GPS”) devices would ensure only subscribers in affected regions would hear the emergency message. In other words, Sirius and XM would vary content by receiver location. Under this framework, Sirius and XM would remain a national radio service. All subscribers would receive the nationally distributed content, but only the appropriate subscribers would hear locally-oriented material culled from that national content.

Although Sirius and XM remain a national radio service, they are still delivering local programming via local emergency alerts. One can imagine how Sirius and XM may later deliver local programming on town meetings and local school events; thereby competing directly with terrestrial radio broadcasters. Thus,

²⁶ FRO & FNPR 04-296, paragraph 10

concern for the longevity of free over-the-air radio service may prevent the implementation of this framework.

E. Preemption of all subscriber text boxes and announcement of the state or local emergency and the channel number transmitting detailed information.

One other framework could require SDARS licensees to preempt all subscriber text boxes and announce the locality and type of alert, and the channel number transmitting detailed information. Normally, the text box displays the channel name and the current program. Here, listeners would not be unduly disrupted since normal broadcasting would not cease. Moreover, all listeners would have quick and easy access to the emergency messages.

However, listeners would need to look at the text box in order to be informed of an emergency message. Moreover, large amounts of emergency messages may cause the text box to display continuous emergency messages, thereby causing these messages to lose their impact and negating the effectiveness of the text box.

Although this framework has negative side effects, it remains a less obtrusive possibility while ensuring all listeners receive emergency messages. Moreover, XM and Sirius would pose no serious threat to terrestrial broadcasters since they would not be varying content based on location.

In the future, licensees should explore a framework which would address SDARS technological limitations while remaining a national service. The necessity for the public to receive vital emergency warnings is of paramount concern, though it must be weighed with the aforementioned limitations in mind. One possible future route involves licensees transmitting a code for preemption of text boxes to

all receivers. This would necessitate GPS devices in the receivers which would determine, based on the code, the location of the emergency alert. The receiver would then preempt the text box if the emergency was within the listener's location.

In this way, the problem of bombarding subscribers with too many emergency messages would be decreased and Sirius and XM would remain a national radio service. More importantly, Sirius and XM would NOT be delivering local programming. Instead, they would be delivering local messages through the text box, not over "the air". This may mitigate concerns of SDARS licensees directly competing against terrestrial radio broadcasters.

CONCLUSION

The FCC must require SDARS licensees to receive and disseminate state and local emergency alerts. Under a state and local EAS framework, licensees must have the ability to receive these warnings directly from the NWS, State Governors, and every State Emergency Operations Centers. Once received, licensees should preempt all subscriber text boxes and announce the emergency and the channel number transmitting detailed information. Licensees should explore a framework where preemption of subscriber text boxes would be determined by GPS devices embedded in subscriber receivers.

Respectfully Submitted by:

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